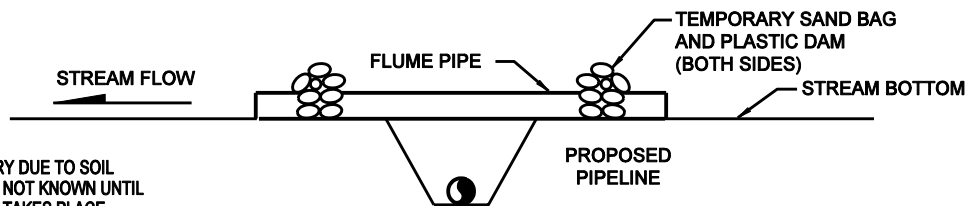


NOTES:

1. TRENCH WIDTH WILL VARY DUE TO SOIL CONDITIONS WHICH ARE NOT KNOWN UNTIL ACTUAL CONSTRUCTION TAKES PLACE.
2. EXTRA WORKSPACE WILL BE LOCATED 50 FEET FROM EDGE OF WATERBODY UNLESS A VARIANCE IS GRANTED. FOR EXTRA WORKSPACE LOCATIONS AND DIMENSIONS SEE ENVIRONMENTAL ALIGNMENT SHEETS.
3. TEMPORARY EROSION CONTROL MEASURES MUST BE REPLACED AT THE END OF EACH WORKING DAY.



*Waterbody Crossing Detail
Flumed Crossing Method*

Proposed: Natural Gas Pipeline Replacement

Reference: 2004-00304

Purpose: Capacity Replacement

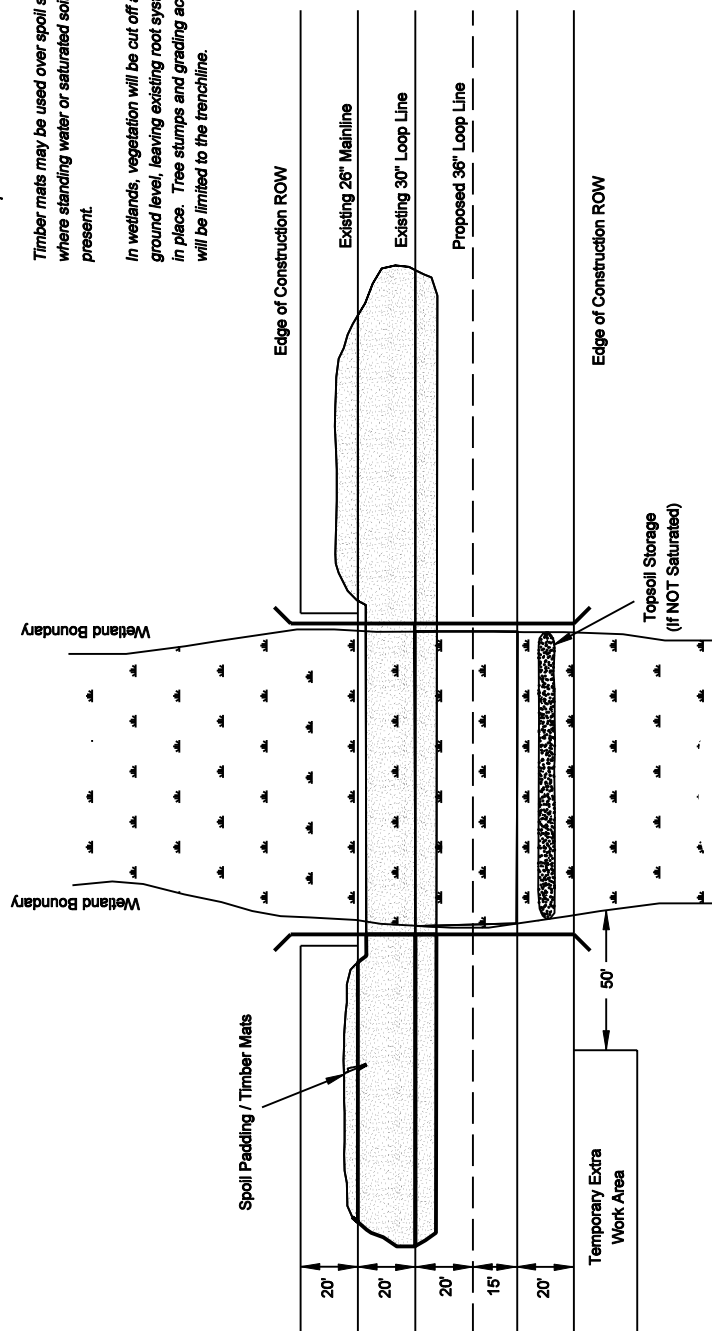
App. by Northwest Pipeline Corporation

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Date: March 2005

Wetland
Silt Fence or Straw Bales
(Sediment barriers will be placed
based on site specific conditions)

Note:
Topsoil will be segregated from the area
disturbed by trenching, except in areas
where standing water is present or saturated
soils are present.
Timber mats may be used over spoil storage
where standing water or saturated soils are
present.
In wetlands, vegetation will be cut off at
ground level, leaving existing root systems
in place. Tree stumps and grading activities
will be limited to the trenchline.



Note: Configuration through wetland is variable but will not exceed 75 feet in width unless a variance is granted.

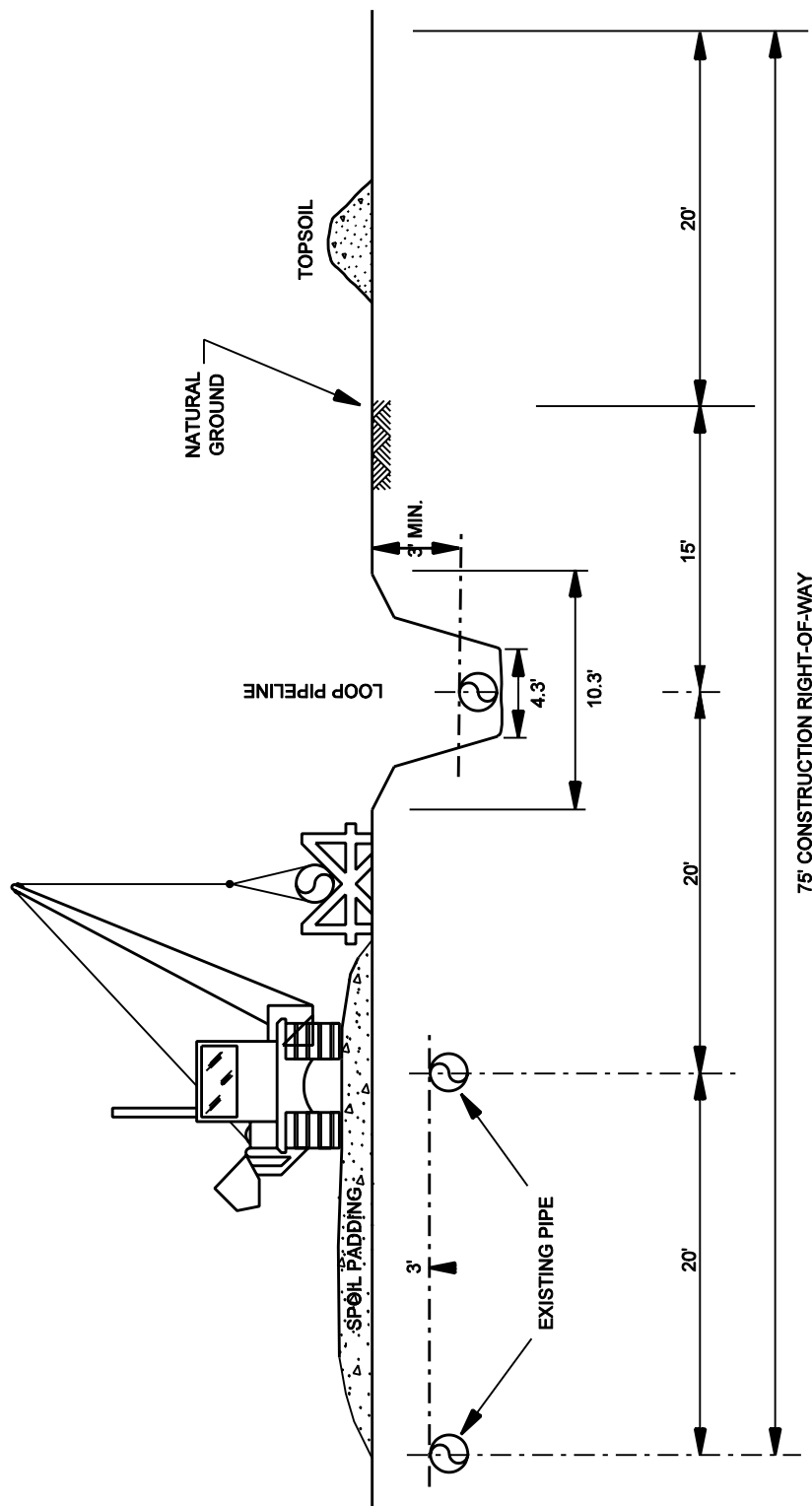
Plan View of
Typical Wetland Crossing

Proposed: Natural Gas Pipeline Replacement
Purpose: Capacity Replacement
App. by Northwest Pipeline Corporation

Reference: 2004-00304

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Date: March 2005



Typical Wetland Cross-Section of 75-Foot
Wide Construction Right-of-Way
Configuration with Existing Pipelines

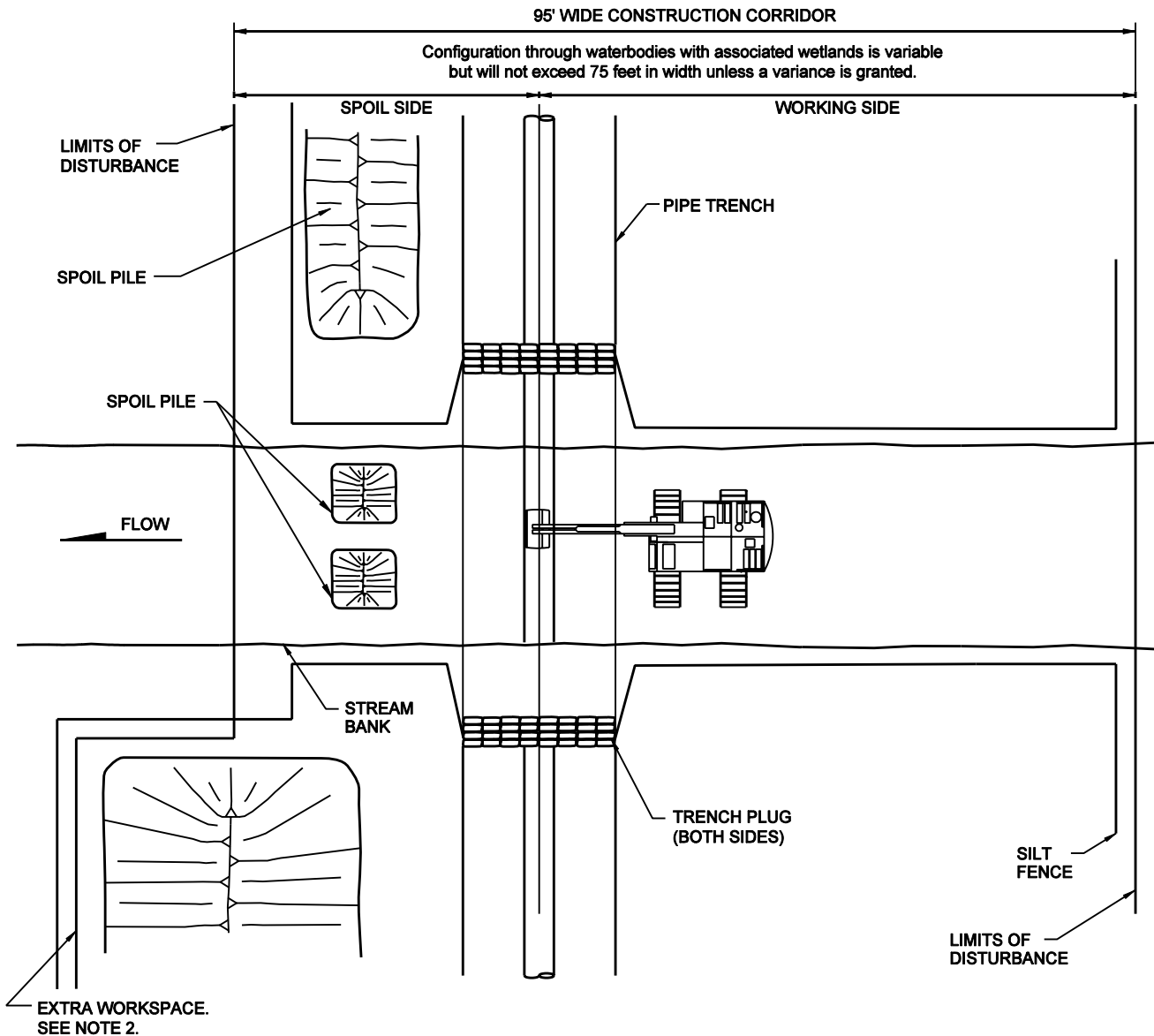
NOT TO SCALE

Proposed: Natural Gas Pipeline Replacement
Purpose: Capacity Replacement
App. by Northwest Pipeline Corporation

Reference: 2004-00304

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Date: March 2005



NOTES:

1. TRENCH WIDTH WILL VARY DUE TO SOIL CONDITIONS WHICH ARE NOT KNOWN UNTIL ACTUAL CONSTRUCTION TAKES PLACE.
2. EXTRA WORKSPACE WILL BE LOCATED 50 FEET FROM EDGE OF WATERBODY UNLESS A VARIANCE IS GRANTED. FOR EXTRA WORKSPACE LOCATIONS AND DIMENSIONS SEE ENVIRONMENTAL ALIGNMENT SHEETS.
3. TEMPORARY EROSION CONTROL MEASURES MUST BE REPLACED AT THE END OF EACH WORKING DAY.

Waterbody Crossing Detail
Wet Open-Cut Method

Proposed: Natural Gas Pipeline Replacement

Reference: 2004-00304

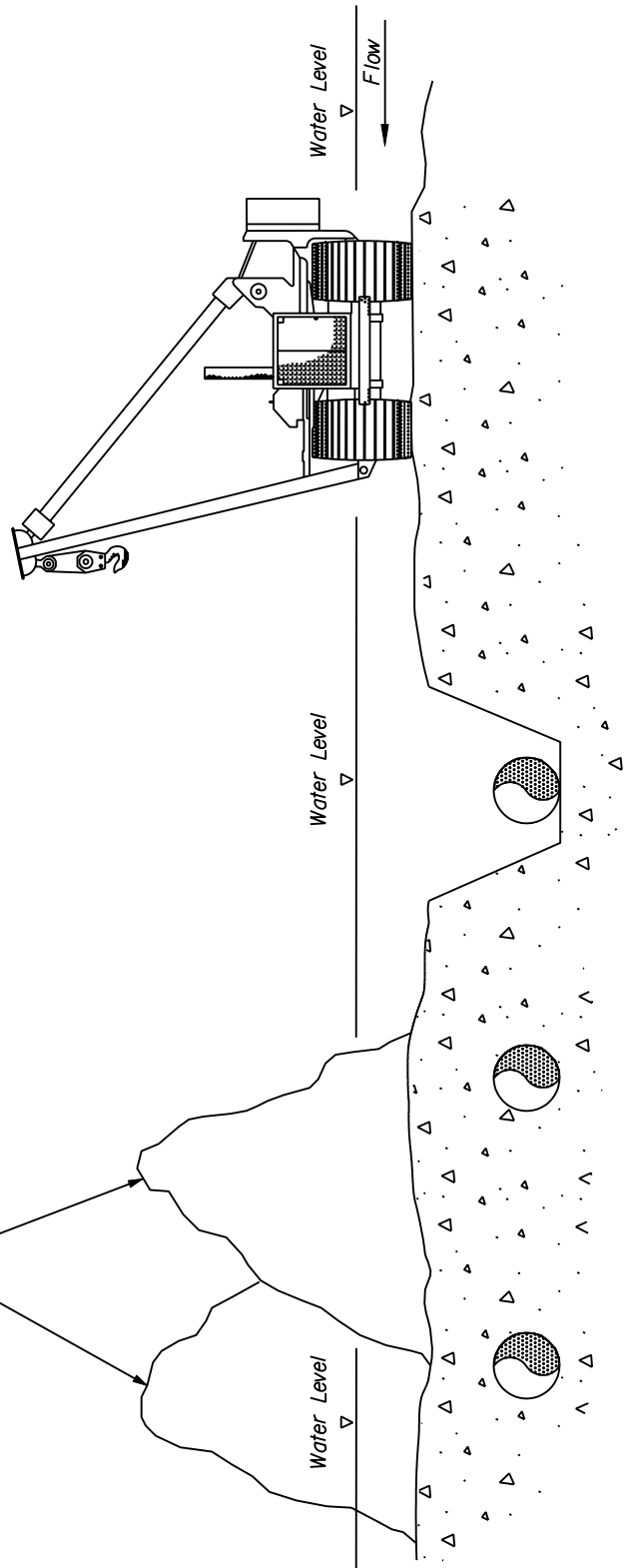
Purpose: Capacity Replacement

App. by Northwest Pipeline Corporation

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Gaps will be left between spoil piles to allow water flow.



NOTE:
Where possible, a minimum of five feet of cover will be maintained over the pipeline under the streambed.

Typical Cross-Section
of Stream Crossing with
Existing Pipelines

Proposed: Natural Gas Pipeline Replacement

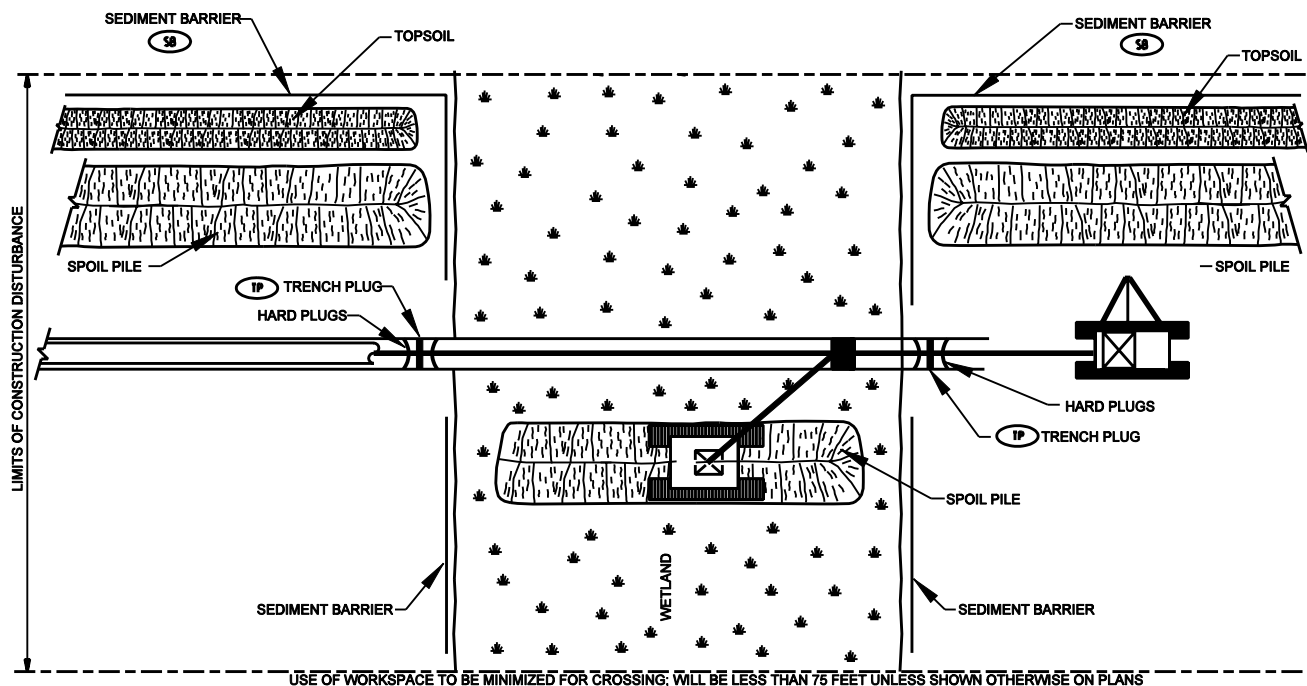
Reference: 2004-00304

Purpose: Capacity Replacement

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NOTES:

- Contractor shall utilize this method for wetland pipelay where support of construction equipment on mats for excavation, stringing, welding, pipelay, backfilling and restoration is very difficult due to saturated conditions.
- During a push/pull crossing, the trench is typically excavated by a single trackhoe, which is utilizing the excavated spoil to build a travel path through the swamp.

Alternatively the Contractor may utilize amphibious excavators (pontoon mounted backhoes) or tracked backhoes supported by fabricated timber mats or floats, to excavate trench.
- Topsoil salvage will not be required in saturated wetlands.
- Contractor shall install sediment barriers at the wetland edge and maintain same throughout construction to the extent possible to prevent surface runoff from the upland construction area and upland spoil storage areas from entering the wetland.
- Contractor shall fabricate the pipe string in an adjacent upland area and add floats to the pipe string. Equipment/winches located on the adjacent upland areas will push or pull pipe the string across wetland.
- Once the pipe is floated in the entire trench the floats are cut allowing the pipe to sink. The track-hoe then retraces its path removing the spoil from the travel lane and replacing it in the trench over the pipe.
- Trench plugs will be installed at the wetland edges.
- Erosion and sediment control measures shall be inspected daily and contractor shall repair if necessary.
- Contractor shall place signage 100 feet back from wetland boundary and advise no refueling of mobile equipment within 100 feet of stream bank. Refuel stationary equipment as per SPCC plan.
- Contractor shall restore grade to near pre-construction topography, replace topsoil where salvaged, and install permanent erosion controls.
- Contractor shall remove any timber mats or fill from wetlands upon completion.
- Contractor shall avoid adjacent wetlands and install sediment barriers (straw bales and/or silt fence) at edge of ROW along wetland edge as required.
- Contractor shall leave hard plugs at edge of wetland, until just prior to trenching.
- Wetland boundaries shall be flagged prior to clearing.

Typical
Push-Pull Construction
Crossing Method

Proposed: Natural Gas Pipeline Replacement

Reference: 2004-00304

Purpose: Capacity Replacement

App. by Northwest Pipeline Corporation

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Date: March 2005